

# 2007 Fact Sheet

## Teens at Work Project Occupational Health Surveillance Program Massachusetts Department of Public Health

### Non-Fatal Work-Related Injuries to Massachusetts Teens, 2000-2004 CONSTRUCTION

The findings presented in this fact sheet cover only non-fatal injuries to Massachusetts teens working in construction. These injuries were identified by the *Teens at Work: Injury Surveillance and Prevention Project (TAW)* during the calendar years 2000-2004 using data from workers' compensation claims (WC) and hospital emergency departments (ED). See our publication "Non-Fatal Work-Related Injuries to Massachusetts Teens, 2000-2004, An Overview" for a detailed description of the project. Our overview and industry-specific fact sheets are all available on the TAW website: [www.mass.gov/dph/teensatwork](http://www.mass.gov/dph/teensatwork).

#### Overview

The construction industry is not a major employer of teens in Massachusetts. From 2000 through 2004, only 2% of employed 15- to 17-year-olds worked in construction<sup>1</sup>. Yet, approximately 5% (112) of the 2,119 work-related injuries to teens (for which industry was known) identified by the TAW project during this time period happened in this industry. Nearly 54% (60) of these injuries were identified through workers' compensation data and 46% (52) were identified through emergency department data. Following are the highlights of our most recent findings on injuries to teens working in construction in Massachusetts.

#### Injuries by Gender

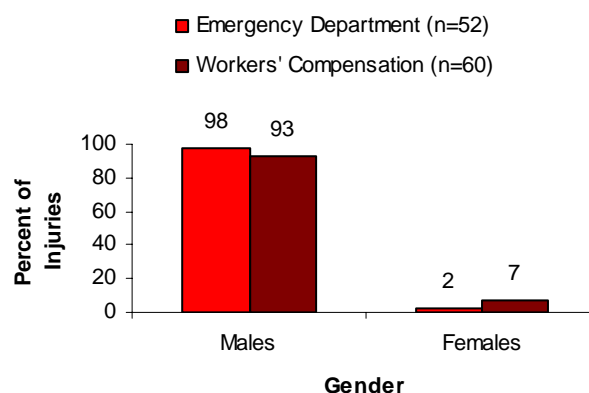
Among young workers in construction, males sustained far more injuries than females (Figure 1). Males appeared slightly more often in the ED data than the WC data, while the opposite was true for the few injuries to females.

Sixteen- and 17-year-old males made up 80% of the construction workforce in 2003, and accounted for 98% of the ED injuries and 93% of the WC injuries from 2000 through 2004.

#### Injuries by Age Group

The majority of injuries in both data sets occurred in older teens aged 16- and 17-years-old, although there were 21 injuries to 14- and 15-year-olds during this time period (Figure 2). Under the Federal Child Labor Laws, 14- and 15-year-olds are not allowed to work on construction sites, however, they may work doing clerical work away from the job-site.

**Figure 1. Work-Related Injuries to Teens under Age 18 in Construction, by Gender and Data Source, Massachusetts, 2000-2004**



Note: Of the 112 injuries identified in this time period, there was 1 WC case for which gender was missing. This case was not included in the calculations.  
Source: Teens at Work: Injury Surveillance and Prevention Project

**Figure 2. Work-Related Injuries to Teens under Age 18 in Construction, by Age and Data Source, Massachusetts, 2000-2004**



Note: Of the 112 injuries identified in this time period, there were 3 cases (1 from ED and 2 from WC) sustained by teens under age 14. These cases were not included in the calculations.  
Source: Teens at Work: Injury Surveillance and Prevention Project

<sup>1</sup>U.S. Bureau of Labor Statistics (2000-2004). Current Population Survey. Washington, DC: U.S. Bureau of Labor Statistics.

## Injuries by Type

Within the ED data, “cuts, lacerations, and punctures” were by far the most common injury types identified among teens working in construction (Figure 3). Far behind this category were “foreign body” (which includes things such as objects in the eye and splinters), “sprains, strains, and tears,” and “fractures.” “Cuts, lacerations, and punctures” were also the most common injury types found in the WC data followed by “sprains, strains, and tears,” and “fractures.”

## Cuts, Lacerations, and Punctures by Body Part Affected

The majority of “cuts, lacerations, and punctures” sustained by teens working in construction were to the fingers (Figure 4). The hands were the second most common body part affected by these types of injuries. Of the 37 “cuts, lacerations and punctures,” information about the source of injury was available for 11 (30%). The majority, 7 (64%), were caused by a hand tool.

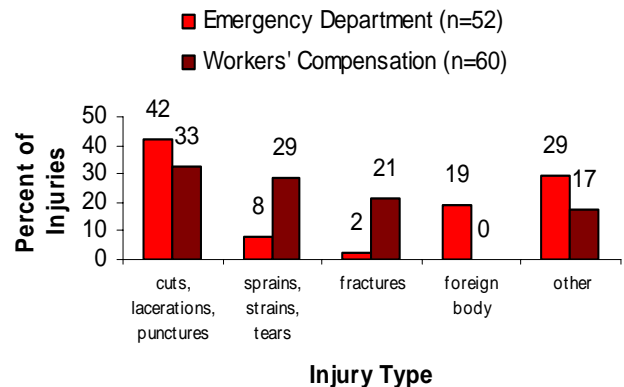
## Sprains, Strains, and Tears by Body Part Affected

Forty-seven percent of “sprains, strains, and tears” sustained by teens working in construction involved the back (Figure 5). Of the 19 “sprains, strains, and tears,” information about the manner in which the injury was inflicted was available for 15 (79%). Nine (60%) of the “sprains, strains, and tears” were caused by bodily reaction and exertion; lifting accounted for 3 (20%). Falls accounted for 6 (40%) of the “sprains, strains, and tears.”

My partner and I were setting up a ladder to assess a roof job. I spotted my partner and he got to the roof. There was ice everywhere and the ladder was resting on ice. I climbed 12-15 feet without a spotter, when the ladder and I fell to the ground. I broke my arm and needed surgery that day to fix it.

~ 17-year-old HVAC Apprentice

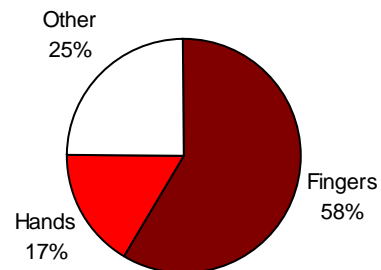
**Figure 3. Work-Related Injuries to Teens under Age 18 in Construction, by Injury Type and Data Source, Massachusetts, 2000-2004**



Note: Of the 112 injuries identified in this time period, there were 12 cases (4 from ED and 8 from WC) for which injury type was unknown. These cases were not included in the calculations.

Source: Teens at Work: Injury Surveillance and Prevention Project

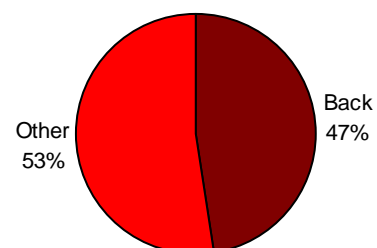
**Figure 4. Work-Related Cuts, Lacerations, and Punctures to Teens under Age 18 in Construction, by Body Part Affected, Massachusetts, 2000-2004 (n=37)**



Note: Of the 37 “cuts, lacerations, and punctures” identified in this time period, there was 1 for which body part affected was unknown. This case was not included in the calculations.

Source: Teens at Work: Injury Surveillance and Prevention Project

**Figure 5. Work-Related Sprains, Strains, and Tears to Teens under Age 18 in Construction, by Body Part Affected, Massachusetts, 2000-2004 (n=19)**

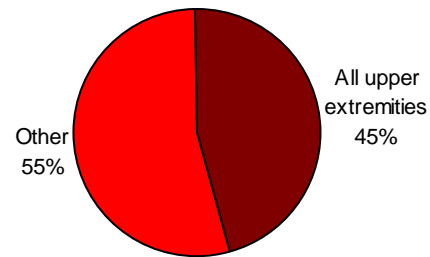


Source: Teens at Work: Injury Surveillance and Prevention Project

## Fractures by Body Part Affected

The large majority of fractures to teens working in construction were to the upper extremities (Figure 6). Of the 12 fractures, information about the manner in which the injury was inflicted was available for 11 (92%). Seven (64%) of the fractures were the result of contact with objects, while 3 (27%) were the result of falls.

**Figure 6. Work-Related Fractures to Teens under Age 18 in Construction, by Body Part Affected, Massachusetts, 2000-2004 (n=12)**



Note: Of the 12 fractures identified in this time period, there was 1 for which body part affected was unknown. This case was not included in the calculations.  
Source: Teens at Work: Injury Surveillance and Prevention Project

I was in the wood closet cutting a piece of wood with a saw when the wood flew out of my hand and the saw caught on to my right thumb causing a laceration. My boss was working 2 houses down the street from me when the accident happened. The next day I was scheduled to work but my boss said, "Don't come back." I lost my job due to the accident.

~ 17-year-old wood worker

## What Injured Teens Have to Say

Since the project's inception in 1993, *Teens at Work Project* staff have completed phone interviews with 49 young construction workers injured on-the-job. While the information from these interviews is not necessarily representative of all young construction workers who have been injured, it nevertheless provides some important insights.

Of these interviewed teens:

- Forty-three percent reported they had received no on-the-job training about how to work safely and avoid injury.
- Fifty-nine percent reported they had no work permits for their jobs at the time they were injured (compared to 33% of teens in all industries). **NOTE:** Massachusetts child labor laws require work permits which are obtained through the school district where the teen resides or attends school.
- As a result of their injuries, teens reported they could not perform their usual activities for an average of 23 days.
- Fifty-one percent believed their injuries were preventable.
- Fourteen percent reported that no supervisor or person responsible for supervising them was on the premises at the time of injury.

**If you have any questions about the information presented here, or would like to learn more about the *Teens at Work Project*, contact Project Coordinator, Beatriz Pazos Vautin at 617-624-5677.**

